

CLAIMS:

- 5
1. Method for the removal of protozoa from water comprising the step of contacting the water with an aluminium based medium which contains surface Al-OH groups for a time and under conditions such that a proportion of the protozoa present in the water are adsorbed onto said medium and removed from the water.
2. Method according to claim 1 wherein the aluminium based medium is alumina (Al_2O_3).
- 10
3. Method according to claim 1 or 2 wherein the surface density of Al-OH groups occurs at an average rate of greater than about 1 hydroxyl group per 10 nm^2 of surface area.
4. Method according to claim 3 wherein the surface density of Al-OH groups occurs at an average rate of greater than about 1 hydroxyl group per 2 nm^2 , preferably greater than about 1 hydroxyl group per nm^2 .
- 15
5. Method according to claim 4 wherein the surface density of Al-OH groups occurs at an average rate of about 1 hydroxyl group per 0.25 nm^2 to about 1 hydroxyl group per 0.18 nm^2 .
6. A method according to claim 1 or 2 wherein the protozoa is one or more selected from *Cryptosporidium* and *Giardia*.
- 20
7. Method according to claim 6 wherein the biological species is *Cryptosporidium*.
8. Method according to claim 2 where the alumina is in particulate form.
9. Method according to claim 8 where the particulate alumina has a diameter in the range of about 15 μm to about 0.05 μm .
- 25
10. Method according to claim 9 wherein the particulate alumina has a diameter in the range of 1.5 μm to about 0.05 μm .
11. Method according to claim 1 or 2 where the water is intended for human contact.
12. Method according to claim 11 where the water is intended for human consumption.
- 30
13. Method according to claim 11 where the water is intended for use in swimming pools or spa pools.
14. Use of an aluminium based medium which contains surface Al-OH groups in the removal of protozoa from water.
- 35
15. Use according to claim 14 wherein the aluminium based medium is alumina (Al_2O_3).

16. Use according to claim 14 or 15 wherein the surface density of Al-OH groups occurs at an average rate of greater than about 1 hydroxyl group per 10 nm^2 of surface area.
17. Use according to claim 16 wherein the surface density of Al-OH groups occurs at an average rate of greater than about 1 hydroxyl group per 2 nm^2 , preferably greater than about 1 hydroxyl group per nm^2 .
18. Use according to claim 17 wherein the surface density of Al-OH groups occurs at an average rate of about 1 hydroxyl group per 0.25 nm^2 to about 1 hydroxyl group per 0.18 nm^2 .
19. Use according to claim 14 or 15 wherein the protozoa is one or more selected from *Cryptosporidium* and *Giardia*.
20. Use according to claim 19 wherein the biological species is *Cryptosporidium*.
21. Use according to claim 15 where the alumina is in particulate form.
22. Use according to claim 21 where the particulate alumina has a diameter in the range of about 15 μm to about 0.05 μm .
23. Use according to claim 22 wherein the particulate alumina has a diameter in the range of 3 μm to about 0.05 μm .
24. Use according to claim 14 or 15 where the water is intended for human contact.
25. Use according to claim 24 where the water is intended for human consumption.
26. Use according to claim 24 where the water is intended for use in swimming pools or spa pools.

add Br →